RECEIVED
MAR 13 '81
ENFORCEMENT AND
FIELD OPERATIONS

AUSTIN COMMUNITY DISPOSAL CO., INC.

MAINTENANCE IMPROVEMENTS ON OLD INDUSTRIAL WASTE AREA

MSW
Trans
549
Rept/Doc

Austin Community Disposal Corp
TXD 549 406

SUPERFUND
FILE

OCT 22 1992
REORGANIZED

Prepared by:

Pittman Engineering Co.
107 N. Lampasas
Round Rock, TX 78664

March, 1981

Dwight L. Pittman P.E.
Dwight L. Pittman, P.E. #34054

Transmitted by letter dated 3/13/81 Received from Dwight Pittman

RECEIVED
JUL 20 1981
CRP/DWR

100015753

AUSTIN COMMUNITY DISPOSAL CO., INC.
MAINTENANCE IMPROVEMENTS ON OLD INDUSTRIAL WASTE AREA

History of Site

On May 3, 1971 an Emergency Order was issued by the Texas Water Quality Board authorizing Industrial Waste Materials Management, Inc. to operate an industrial waste disposal site on property now owned by Austin Community Disposal Co., Inc. Industrial waste was accepted at this site until May 4, 1972 when the Texas Water Quality Board issued Order #72-3E revoking authority to dispose of industrial waste at the site. A letter dated June 19, 1972 from Hugh Yantis to Industrial Waste Materials Management, Inc. set forth procedures for closing the industrial portion of the site.

The closing of the industrial site was supervised and inspected by the Texas Water Quality Board staff during the remainder of 1972 and the early part of 1973. In February of 1973 a clay key was installed to preclude lateral seepage from Drum Disposal Site #1. Inspection memos in June of 1973 from Tom Kelly and Jim Bain to Ken Jurgens indicated that the site closure was substantially completed with the exception of revegetation of drum disposal site #1 and recording of legal description of the disposal area in the Deed Records of Travis County.

A letter dated January 7, 1977 from Nicholas Murphy to Ira Moore (President of Longhorn Disposal Service) stated that "no recent information indicates that there are any seepage or hazards at this site", and requested permission to conduct a geologic evaluation of the site for research purposes. The letter further states that "the original disposal company retains primary responsibility for any seepage or leakage from the site resulting from past disposal" (Nicholas Murphy's opinion).

The results of the geologic evaluation were contained in Texas Water Quality Board Report #GS-76-41F dated August 22, 1977. A memo dated August 22, 1977 from Jerry Mullican to Hugh Yantis confirmed that no leakage from Drum Disposal Site #1 was detected by the geologic investigation.

In June of 1980 seepage was observed on the side slope of an old brush and/or municipal waste disposal area located immediately southwest of the old industrial site. A joint inspection of the site was made on June 24, 1980 by the Texas State Health Department and the Texas Department of Water Resources. To date no firm recommendations have been received from either department concerning correction of conditions which caused the seepage.

In December of 1980 Austin Community Disposal requested a joint meeting with the Texas Department of Water Resources and the Texas State Health Department. In that meeting the company presented the proposed site improvement plan as outlined in the following sections. Following that meeting, personnel from the State Health Department ran an electrical resistivity survey to confirm the location of Drum Disposal Site #2.

In-House Evaluation of Site

In the interest of avoiding future problems with the old Industrial Site and the surrounding municipal waste, Austin Community Disposal Co., Inc. conducted an in-house evaluation of the site. The following determinations were made:

1) Cover material over the old brush disposal area had settled (due to decomposition of the brush and/or inadequate compaction of the brush at time of placement) allowing ponding and infiltration of recent heavy rainfalls.

2) The surface of the old industrial waste area was too rough to allow mowing of the site. Municipal waste which was placed over Drum Disposal Site #2 prior to February, 1973 (memo: Sutton to Files) was partially exposed due to inadequate cover. The surface conditions were such that it appeared possible for some ponding and infiltration to occur in this area also.

3) The side slopes of Drum Disposal Site #1 were too steep to allow mowing.

After reviewing the finding of their in-house evaluation, Austin Community Disposal Co., Inc. concluded that the following maintenance improvements were needed:

1) Additional cover was needed to eliminate ponding and minimize infiltration in the area of Drum Disposal Site #2 and the surrounding municipal waste.

2) Drum Disposal Site #2 and the surrounding area should be graded to drain and leveled to allow mowing.

3) Additional cover is needed on the sides of Drum Disposal Site #1 to reduce side slopes and allow mowing.

4) All areas which are disturbed by the above operations (1-3) should be re-topsoiled and revegetated.

5) Drainage channels surrounding the industrial area should be graded to drain. The flow lines should be raised where possible to allow flattening side slopes on adjoining municipal waste disposal areas which surround the industrial area.

PROPOSED SITE IMPROVMENT PLAN

A. Drum Disposal Site #1 and Area North of Access Road

Approximately 50% of this area has received additional cover consisting of clay compacted with a sheeps-foot roller and has been resloped to allow mowing and maintenance. The portion of Drum Disposal Site #1 which borders to north property line cannot be provided with flatter slopes until the adjacent property is purchased after the approval of the Municipal Solid Waste Site Expansion by the Texas State Health Department. Those areas where access is not limited by adjacent property lines and/or channels will receive additional compacted clay cover, as needed, and will be resloped, topsoiled and revegetated by July 1, 1981.

B. Drum Disposal Site #2 and Surrounding Municipal Waste Disposal Areas South of Access Road

This area has received additional compacted clay cover varying from two to six feet in depth. The area has been rough graded to drain and is ready to be staked for final grades. After staking, additional compacted clay cover will be added as needed to bring the area up to the desired elevations as depicted in the attached plans. After receiving the additional clay cover, the area will be graded to drain with a minimum slope of approximately 1%. After placement of the clay cover is completed, the area will be retopsoiled to a depth of six inches and revegetated. This work should be complete by July 1, 1981. It should be noted that side slopes on the municipal waste surrounding Drum Disposal Site #2 and adjacent to the existing drainage channels will not be reworked by the above date.

C. Adjacent Drainage Channels

After approval of the Municipal Solid Waste Site Expansion by the Texas State Health Department and purchase of the adjacent property (currently under purchase option), the drainage channels surrounding the old Industrial Waste Site will be reworked to improve drainage and will be shifted away from the site where possible to provide flatter side slopes and to provide additional cover where possible on the sides of the municipal waste which surrounds Drum Disposal Site #2. Accumulated silt will be removed from the channels and replaced with compacted clay to raise the channel bottoms to the elevations shown on the attached Landfill Completion Plan (Attachment 9). After the channels have been relocated and/or reworked the side slopes will be covered with compacted clay, topsoiled and revegetated. At this same time, the north side of Drum Disposal Site #1 will be resloped, topsoiled and revegetated. It is anticipated that this work will be completed within six months, weather permitting, after approval of the Municipal Site Expansion by the Texas State Health Department.

Engineering Plans

Engineering plans are attached which provide further details concerning proposed work described in the section entitled "Proposed Site Improvement Plan". These plans include the following:

1) Attachment #6 - Sectionized Fill Layout

2) Attachment #9 - Landfill Completion Plan. This attachment shows the existing contours as reflected by aerial photography taken in July, 1978 and May, 1980. Also shown are proposed final contours for adjoining areas, location of cross-section lines and proposed channel flow lines.

3) Attachment #8 - Shows channel locations, channel cross-sections and flow data.

4) Cross-Sections XB, I, J, K and L through the old industrial waste area showing existing contours prior to June, 1980 and proposed contours after adding additional cover and grading to drain.

Revegetation Plan

The permanent vegetation will consist of common bermuda grass and a mixture, as available, of wild rye, rescue grass and green sprangletop. The latter three grasses are available on a limited basis commercially and some may be deleted if not available or if planting times are incorrect.

The recommended seeding rates and dates are:

Species	Planting Rate	Planting Date
Common bermuda	4.6 lb/ac	3/1 to 5/30
Wild rye	25.0 lb/ac	9/1 to 10/1
Green sprangletop	3.4 lb/ac	2/1 to 5/15
Rescue	25.0 lb/ac	9/1 to 10/1

Cultipack prior to seeding where needed to firm the seed bed. Seed by the use of a grass drill equipped with double coulter disc furrow openers, depth band and press wheels. The distance between drill rows should not exceed twelve inches.

An alternative is to broadcast seed by hand, or with a fertilizer distributor or similar implement, so as to obtain uniform distribution of seed over the area being planted. The area should again be packed with a cultipacker or roller immediately after planting.

Compaction of Clay Cover

1) Preparation of Site: Prior to placing any clay cover, all clearing, grubbing and stripping operations shall be completed and stump holes or other small excavations shall be backfilled with suitable material and thoroughly tamped. The site shall then be wetted, disced to mix the water thoroughly into the ground surface, and rolled with a sheepsfoot type tamper roller, or other approved roller, to assure a uniform density of the ground surface and to provide a cover bond between the ground surface and the first lift of cover.

2) Placing of Material: After the site has been properly prepared, the placing of cover material may proceed. Material shall be excavated from areas designated by the Engineer. Care shall be used in the selection of borrow material so that the compacted cover will have the necessary degree of compaction, plasticity index, impermeability and stability.

The material shall be spread to approximately horizontal layers not more than eight inches (8") loose depth before compacting. If, in the opinion of the Engineer, the surface of the cover is too smooth and hard to bond properly with the succeeding layer, such surface shall be roughened and loosened by scarifying and thoroughly wetted before the succeeding layer is placed. Material hauling equipment shall be so routed over the surface of the cover to distribute the added compaction afforded by the rolling equipment.

3) Processing of Material: After spreading of the material, moisture shall be added to provide a total moisture content slightly less than that which will obtain optimum unit dry weights of the particular material with the specified rolling equipment and method of rolling. The moisture content shall be uniformly distributed throughout rolling. The moisture content shall be uniformly distributed throughout the layer of material, and to accomplish this distribution, the layer of material shall be mixed by discing or harrowing between applications of water.

The cover shall be compacted with a sheepsfoot type tamper roller, water or sand ballasted, having tamping feet uniformly staggered over its cylindrical surface, and equipped with cleaners. Tamping feet shall be round, diamond or square shaped with a face area not less than five and one-half (5 1/2) nor more than ten (10) square inches. Tamping feet shall project five (5) to ten (10) inches from the cylindrical surface of the drum. Spacing of tamping feet shall be such that each two (2) square feet of drum surface will have approximately three (3) tamping feet. Total weight of the roller shall be such that foot pressure will not be less than three hundred (300) pounds per square inch of foot area when empty and not less than five hundred (500) per square inch of foot area when ballasted.

After addition of water to a spread layer to provide the required moisture content, the layer shall be compacted by rolling with the above specified sheepsfoot type tamper roller. The rollers shall be pulled by a crawler type tractor of adquate power at a speed of two to three miles per hour. Each layer shall be compacted by not less than eight (8) passes of the tamper roller. One (1) pass shall constitute the passing of one (1) roller in one (1)

direction over the entire surface of the layer. Successive trips of the roller shall overlap. Where new material abuts old material, the old or natural material shall be scarified, wetted, and worked with the rollers along with each layer of new material to provide adequate bond between the materials.

For each layer of clay cover material, it is the intent of this specification to provide the density as required herein, unless otherwise shown on the plans. Clay soils (soils with plasticity index of 30 or more) shall be sprinkled or aerated sufficiently to provide a moisture content not less than 2 percent below that determined by the Test Method Tex-114-E of the Texas Highway Department. They shall then be compacted to not less than 95 percent nor more than 105 percent of the maximum density as determined by the Test Method Tex-114-E.

Monitoring Program

Austin Community Disposal Co., Inc. proposes to monitor the quality of water flowing into and out of the site in the drainage channels on a quarterly basis. One sampling point will be located upstream from the old Industrial Waste Site and one sampling point will be located downstream from the site. The following parameters will be monitored: pH, conductivity, COD, TOC, and total dissolved solids.